

## **Summer Internship (04/06/24 – 24/07/24)**

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## Overview

Automation Anywhere A2019 is a leading Robotic Process Automation (RPA) tool known for its comprehensive capabilities and user-friendly interface. It supports a wide range of operating systems and offers both cloud and on-premises deployment options. The platform is browser-based and includes enhanced security features such as authentication, encryption, and real-time analytics.

### Key Capabilities

1. **Intuitive Interface:** Facilitates the creation of bots and automation workflows with multiple views for collaboration.
2. **Cross-Platform Support:** Compatible with Windows, Linux, and macOS.
3. **Advanced Variables and Scripting:** Supports JavaScript, Python, and VBScript.
4. **Recording Capabilities:** Works across various platforms like Windows, Citrix, Web, and SAP.
5. **Flexible Architecture:** Allows integration of new command packages. We can download packages from the bot-Store and import them in our workspace.

### Core Components

1. **Automation Anywhere Robotic Interface (AARI):** Simplifies user-bot interactions, enabling process automations and feedback loops.
2. **Discovery Bot:** Identifies automation opportunities and creates bots based on ROI prioritization.
3. **IQ Bot:** Processes complex documents and emails using AI to automate document-centric tasks.
4. **Bot Insight:** Provides real-time analytics and insights through customizable dashboards.
5. **Bot Store:** An online marketplace for pre-built bots and digital workers, with a private option for internal bot sharing.

## My Progress and pathway in the course (Document Automation Developer)

- **Automating Data Extraction from documents** – Here I learnt to create instances and new bots.

Create Learning Instance Cancel Next

Name

Invoice\_processing

Description (optional)

To check that incoming invoice forms are valid ot not

Document Type

Invoices

Language

English

Locale

English (United States)

Provider

Automation Anywhere (Pre-trained)

☒ Improve accuracy using validation

The system learns from user-provided changes in the Validator.

- After creating an instance I took sample invoice data in PDF form from the web and tested on my learning instance.

## Process Document(s)

Cancel

Process Documents

### Input documents

You have selected 1 file to upload. Invoice10.pdf

Browse...

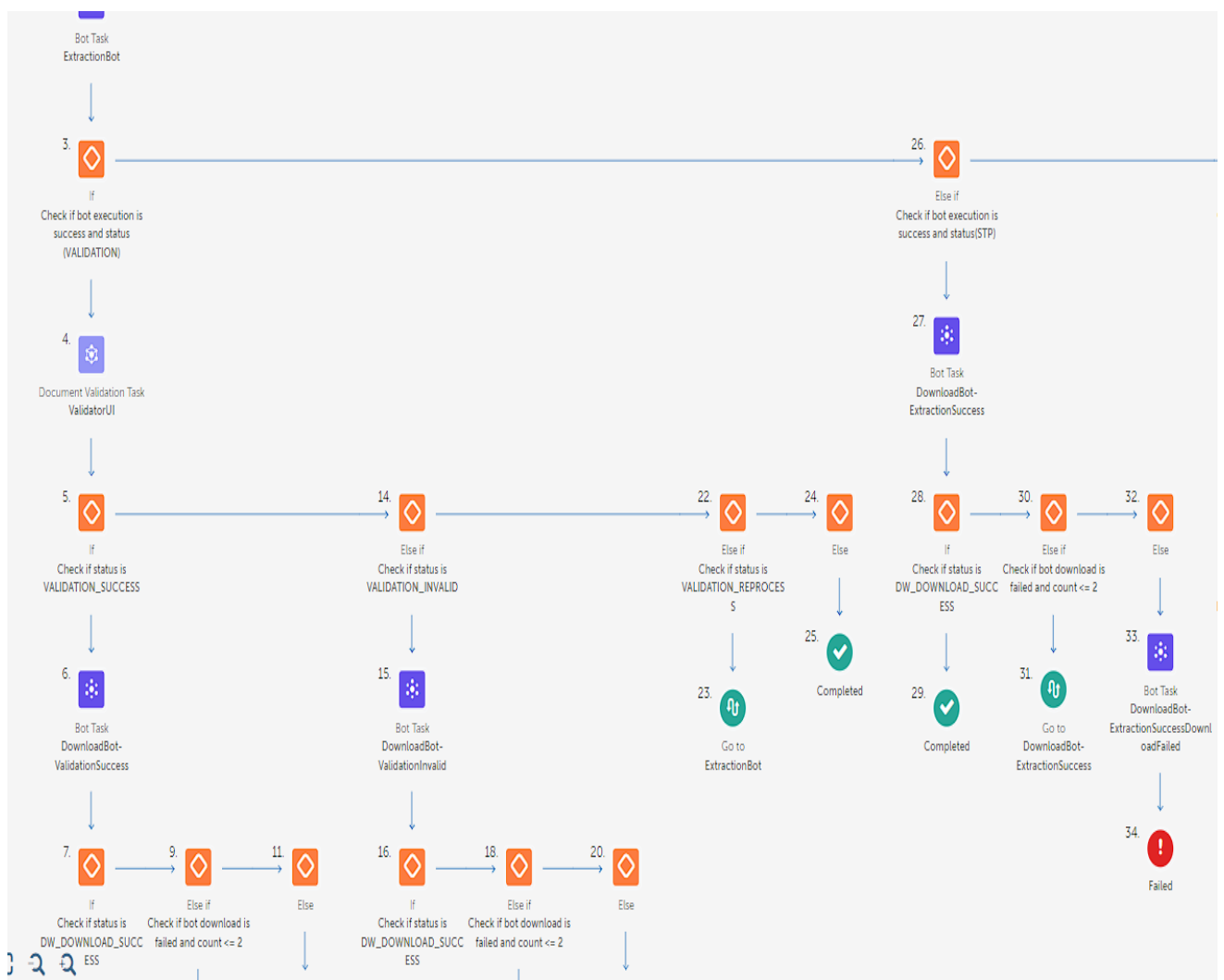
5 document(s) can be uploaded at once. Accepted file sizes less than 2mb. File types: jpeg, jpg, png, pdf, tiff, tif

### Download data to

C:\Users\hpl\OneDrive\Desktop\automation

The device or device pool processing the documents needs access to this folder

- Visualisation of the bot can also be done side by side.



- In the above bot visualisation diagram , we can change any bot file name, add more tasks after the Document Validation Task as mentioned and many other functions.

- Any changes in the bot can be made while bot visualisation , for example we can change the output file / extracted file type from JSON format to .csv file.

## Task: Bot

Executes a bot with inputs and outputs

Element name

DownloadBot-ValidationSuccess

Used only as internal reference during design and must be unique within this process

Task name

Download CSV -  $\$input[InputFileName]\$, Validation S (x)$

☐ Hide this task from users

Bot queue timeout

24	<div><div>+</div><div>-</div></div>	hours	minutes	0	<div><div>+</div><div>-</div></div>
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If Bot does not start within the specified time, this Task will timeout. Maximum is 24 hours, minimum is 1 minute.

Select bot

Invoice\_processing\_downloadbot

Browse

[Preview bot](#)

Run bot and dependencies using

☒ Latest version

Bot priority

High

Bot Task execution mode

Remote execution

- While our document is being processed we can not run any other bot or instance as our device is busy and we can run only one bot at a time. We can check the status of our bot in the queue , under the **Manage-> in progress** activities.

## In progress activity

Status	Choose
--------	--------

Activity (2 of 2)

<input type="checkbox"/>	Status	Item name	Automation priority	Progress	Current action	Bot	Activity type	
<input type="checkbox"/>	Queued	<a href="#">AARI private requestId-52514_ref...</a>	Medium	0%   Line 0 of 0	Waiting for user: shoor...	Invoice_processing_ex...	N/A	⋮
<input type="checkbox"/>	Pending executi...	<a href="#">AARI private requestId-52509_re...</a>	Medium	0%   Line 0 of 0	Connecting to device: ...	Invoice_processing_ex...	N/A	⋮

- After the bot has run successfully , we can check the status of out instance ; if there is no error then the Validation field is empty and the files are uploaded in our output folder mentioned . We can check the successful tasks in **the Activity->Historical view**.

## Historical activity

Time filter: Last 90 days

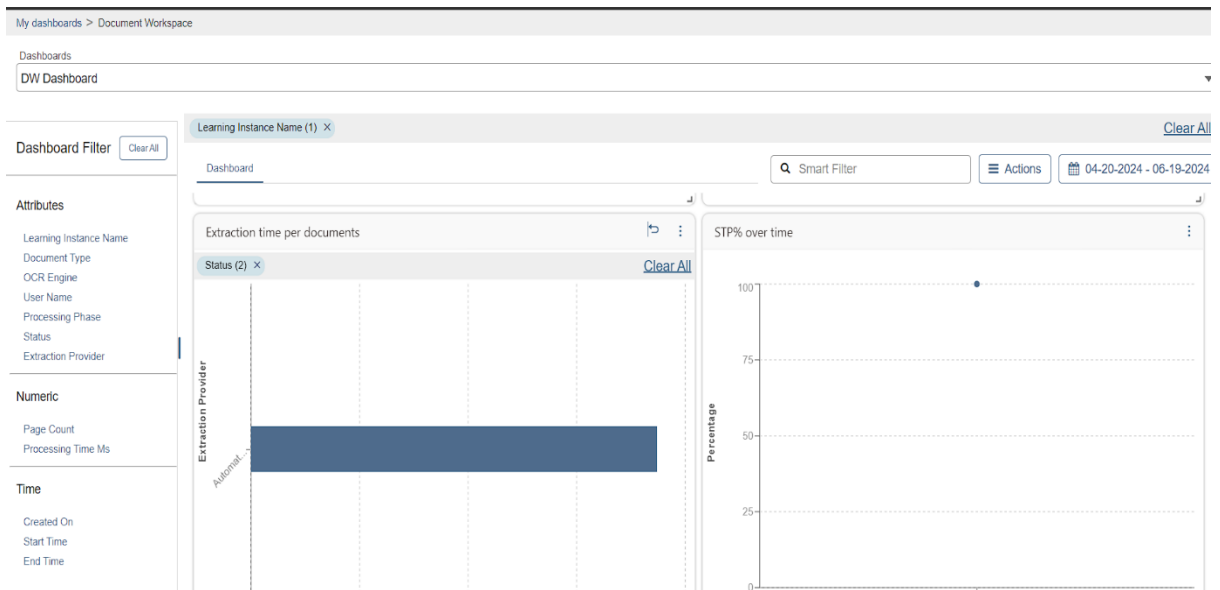
Status

Choose


Activity (31 of 31)

<div></div>	Status	Item name	Automation priority	Device name	Bot name	User	Started on	Ended on
<div></div>	<div><div></div><div></div></div> Completed	<a href="#">AARI private requestId-52514_ref...</a>	High	Shoor	Invoice_processing_do...	shoorkrishnanshu@gm...	13:53:16 IST 2024-06-19	13:53:21 IS 2024-06-19
<div></div>	<div><div></div><div></div></div> Completed	<a href="#">AARI private requestId-52514_ref...</a>	Medium	Shoor	Invoice_processing_ex...	shoorkrishnanshu@gm...	13:52:22 IST 2024-06-19	13:53:10 IS 2024-06-19
<div></div>	<div><div></div><div></div></div> Completed	<a href="#">AARI private requestId-52509_re...</a>	High	Shoor	Invoice_processing_do...	shoorkrishnanshu@gm...	13:52:13 IST 2024-06-19	13:52:18 IS 2024-06-19
<div></div>	<div><div></div><div></div></div> Completed	<a href="#">AARI private requestId-52509_re...</a>	Medium	Shoor	Invoice_processing_ex...	shoorkrishnanshu@gm...	13:45:27 IST 2024-06-19	13:52:05 IS 2024-06-19
<div></div>	<div><div></div><div></div></div> Completed	<a href="#">hello 24.06.19.01.25.52 shoorkris...</a>	Medium	Shoor	hello	shoorkrishnanshu@gm...	01:25:59 IST 2024-06-19	01:26:02 IS 2024-06-19
<div></div>	<div><div></div><div></div></div> Completed	<a href="#">hello 2024.06.18.19.53.32 shoork...</a>	Medium	Shoor	hello	shoorkrishnanshu@gm...	01:23:30 IST 2024-06-19	01:24:21 IS 2024-06-19
<div></div>	<div><div></div><div></div></div> Deploy failed	<a href="#">hello 2024.06.18.19.42.49 shoork...</a>	Medium	Shoor	hello	shoorkrishnanshu@gm...	01:12:57 IST 2024-06-19	01:12:57 IS 2024-06-19
<div></div>	<div><div></div><div></div></div> Deploy failed	<a href="#">hi 2024.06.18.19.18.32 shoorkris...</a>	Medium	Shoor	hi	shoorkrishnanshu@gm...	00:48:35 IST 2024-06-19	00:48:35 IS 2024-06-19

- Finally we can use the **Bot Insight** feature for tracking and analysing metrics like process completion rates , errors and resource usage. There are many fields like performance monitoring , business insights , Custom dashboards and reports and so on.



- After this completion , I made a few forms and integrated them with bots.

 **Analysis**

Enter the name of the player

Enter the club

Enter the goals and assists

Analyse

Final output

close

- In the end I went through many other inbuilt packages like Generative AI, standard forms and more.
- I completed the course and then attempted the Developer automation assessment.





# TEST RESULTS

YOU GOT 14 OUT OF 15 CORRECT: 93%  
**YOU PASSED!**

TIME LIMIT

 30:00

TOTAL TIME

 13:59

Congratulations! You have passed this assessment.

**Note: You will receive an email with your badge. Please check your registered email for instructions to access your badge.**

0 ATTEMPTS REMAINING

75% REQUIRED FOR PASSING GRADE

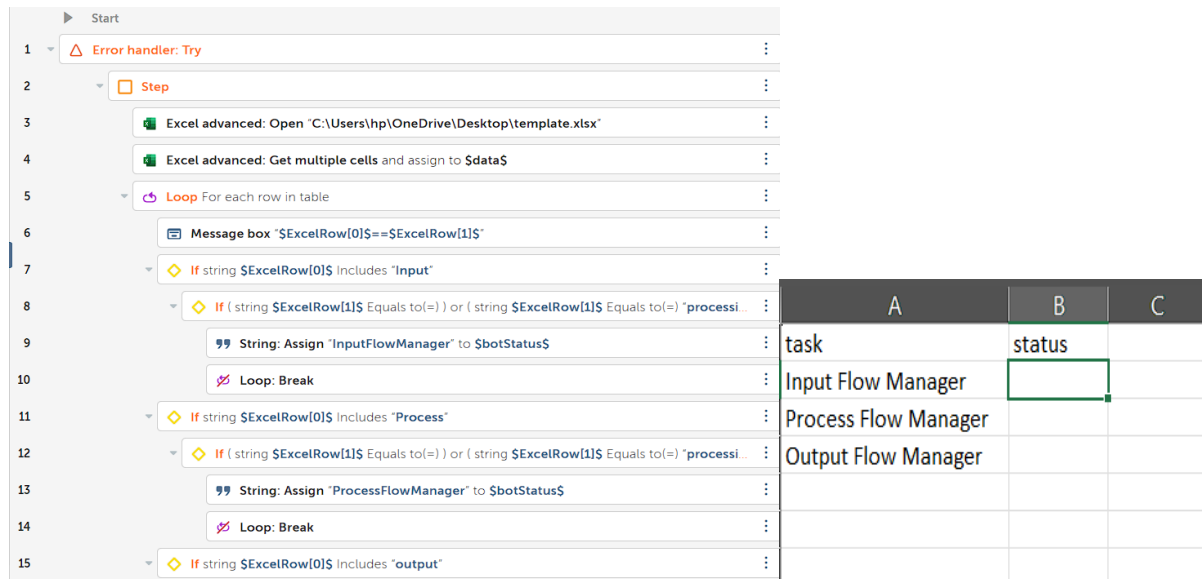
Continue to Next Section

## FINAL RPA PROJECT- “RPA LEARNING TRAIL”

After completing a few courses on the RPA bot automation , I completed the RPA challenge.

Initially a “Resume” bot checks the status of 3 sub bots named Input flow Manager , Process flow Manager and Output flow Manger . The result I attain from the resume bot , I run that bot in my final “Main Task” bot.

### Resume bot



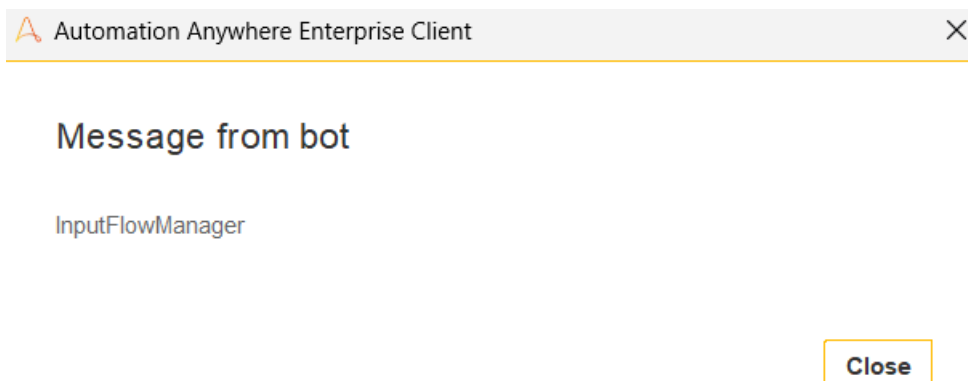
The screenshot displays the RPA Studio workflow for the 'Resume bot' and an associated Excel spreadsheet. The workflow steps are as follows:

- Start
- Error handler: Try
- Step
- Excel advanced: Open "C:\Users\hp\OneDrive\Desktop\template.xlsx"
- Excel advanced: Get multiple cells and assign to \$data\$
- Loop For each row in table
- Message box "\$ExcelRow[0]\$==\$ExcelRow[1]\$" (Note: the image shows a typo in the original text, corrected to \$ExcelRow[1]\$)
- If (string \$ExcelRow[0]\$ Includes "Input")
- If (string \$ExcelRow[1]\$ Equals to(=) ) or ( string \$ExcelRow[1]\$ Equals to(=) "processi..
- String: Assign "InputFlowManager" to \$botStatus\$
- Loop: Break
- If string \$ExcelRow[0]\$ Includes "Process"
- If (string \$ExcelRow[1]\$ Equals to(=) ) or ( string \$ExcelRow[1]\$ Equals to(=) "processi..
- String: Assign "ProcessFlowManager" to \$botStatus\$
- Loop: Break
- If string \$ExcelRow[0]\$ Includes "output"

The Excel spreadsheet shows the following data:

A	B	C
task	status	
Input Flow Manager		
Process Flow Manager		
Output Flow Manager		

Now the resume bot give me output as “Input Flow Manager so I call the input flow manager bot.



The screenshot shows the Automation Anywhere Enterprise Client interface. At the top, there is a header bar with the logo and the text "Automation Anywhere Enterprise Client" and a close button (X). Below the header, the main area displays the message "Message from bot" in a large font. Underneath, the text "InputFlowManager" is shown. At the bottom right, there is a yellow button labeled "Close".

The **input flow manager** task bot looks for the challenge.xlsx file , it then creates a copy of the file and adds a status column there with default value as “**NEW**” . The below is the copy of the file. Here the status of the Input flow manager in my resume template goes to completed.

First Name	Last Name	Company Name	Role in Company	Address	Email	Phone Number	status
John	Smith	IT Solutions	Analyst	98 North Road	jsmith@itsolutions.co.uk	40716543298	NEW
Jane	Dorsey	MediCare	Medical Engineer	11 Crown Street	jdorsey@mc.com	40791345621	NEW
Albert	Kipling	Waterfront	Accountant	22 Guild Street	kipling@waterfront.com	40735416854	NEW
Michael	Robertson	MediCare	IT Specialist	17 Farburn Terrace	mrobertson@mc.com	40733652145	NEW
Doug	Derrick	Timepath Inc.	Analyst	99 Shire Oak Road	dderrick@timepath.co.uk	40799885412	NEW
Jessie	Marlowe	Aperture Inc.	Scientist	27 Cheshire Street	jmarlowe@aperture.us	40733154268	NEW
Stan	Hamm	Sugarwell	Advisor	10 Dam Road	shamm@sugarwell.org	40712462257	NEW
Michelle	Norton	Aperture Inc.	Scientist	13 White Rabbit Street	mnorton@aperture.us	40731254562	NEW
Stacy	Shelby	TechDev	HR Manager	19 Pineapple Boulevard	sshelby@techdev.com	40741785214	NEW
Lara	Palmer	Timepath Inc.	Programmer	87 Orange Street	lpalmer@timepath.co.uk	40731653845	NEW

After this the process flow manager is executed and it goes through each row one by one and completed the challenge successfully . This uses “**Xpath**” to capture various objects on the screen and performs the functions . As each row is processed I change the status from “**NEW**” to “**processing**” and then finally “**completed**” .

First Name	Last Name	Company Name	Role in Company	Address	Email	Phone Number	status
John	Smith	IT Solutions	Analyst	98 North Road	jsmith@itsolutions.co.uk	40716543298	completed
Jane	Dorsey	MediCare	Medical Engineer	11 Crown Street	jdorsey@mc.com	40791345621	completed
Albert	Kipling	Waterfront	Accountant	22 Guild Street	kipling@waterfront.com	40735416854	completed
Michael	Robertson	MediCare	IT Specialist	17 Farburn Terrace	mrobertson@mc.com	40733652145	completed
Doug	Derrick	Timepath Inc.	Analyst	99 Shire Oak Road	dderrick@timepath.co.uk	40799885412	completed
Jessie	Marlowe	Aperture Inc.	Scientist	27 Cheshire Street	jmarlowe@aperture.us	40733154268	completed
Stan	Hamm	Sugarwell	Advisor	10 Dam Road	shamm@sugarwell.org	40712462257	completed
Michelle	Norton	Aperture Inc.	Scientist	13 White Rabbit Street	mnorton@aperture.us	40731254562	completed
Stacy	Shelby	TechDev	HR Manager	19 Pineapple Boulevard	sshelby@techdev.com	40741785214	completed
Lara	Palmer	Timepath Inc.	Programmer	87 Orange Street	lpalmer@timepath.co.uk	40731653845	completed

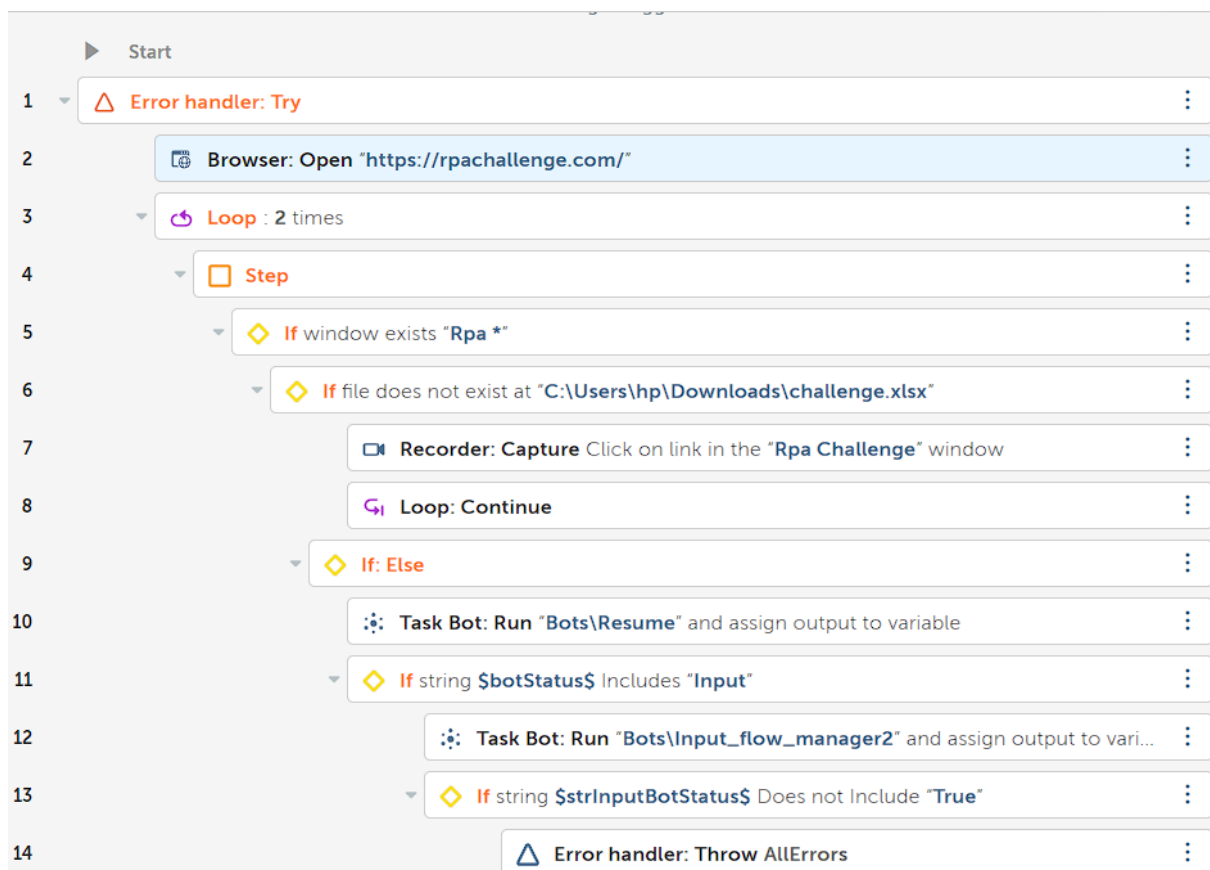
# Congratulations!

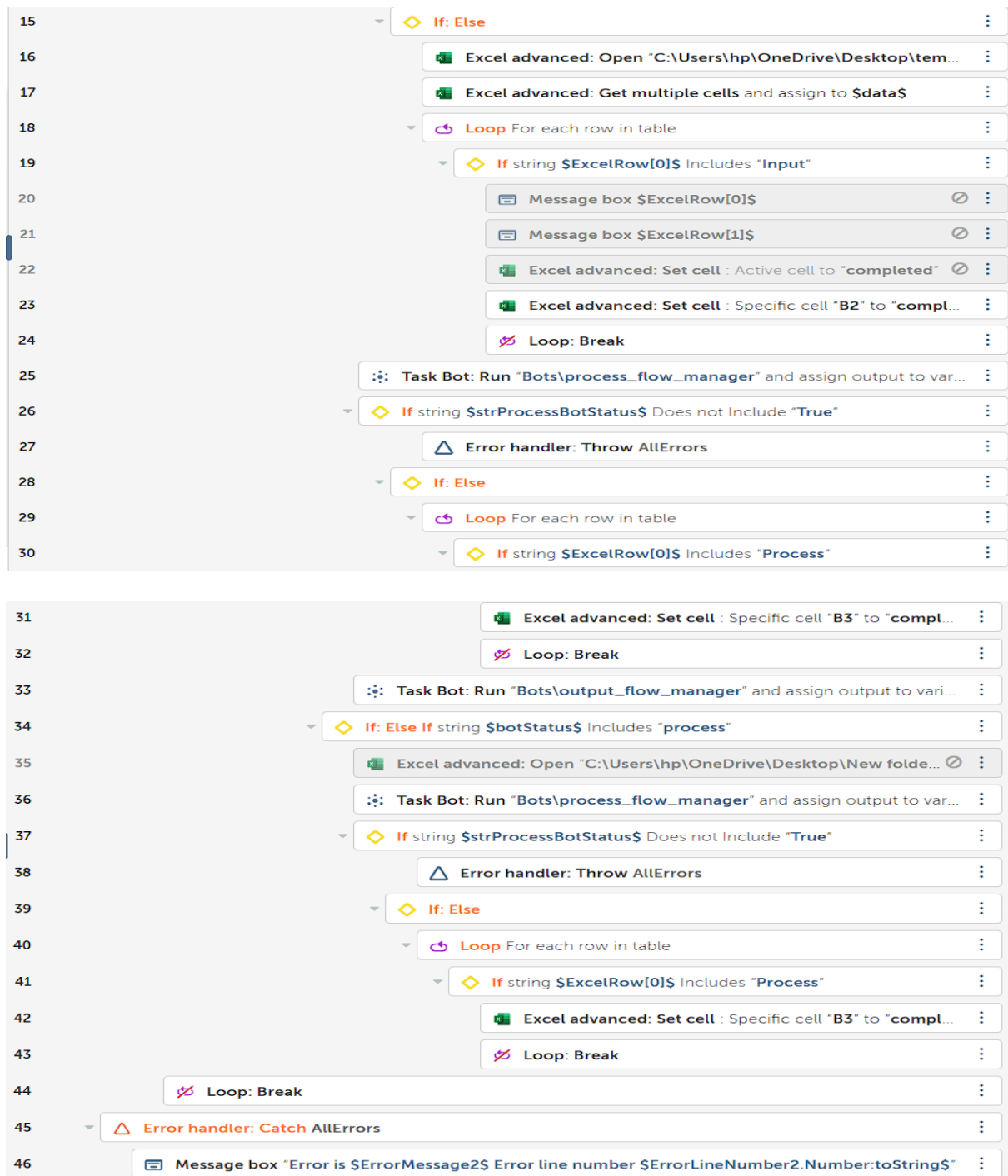
Your success rate is 100% ( 70 out of 70 fields) in 21841 milliseconds

After this the status of my **process flow manager** and **the output flow manager** goes to completed and bot is closed along with all the excel files.

task	status	
Input Flow Manager	completed	
Process Flow Manager	completed	
Output Flow Manager	completed	

**Snippets of my final Task Bot** – This combines all the 4 child bots and then this parent bot runs accordingly.





FINAL CONFIRMATION CERTIFICATE.